

SERVICE MANUAL

**VHF PRESELECTOR
UHF PRESELECTOR**

MODEL MA-305

SERVICE INSTRUCTIONS

REGENCY MA-305

PRESELECTORS

A. GENERAL DESCRIPTION

The MA-305 is a helical preselector kit that is used with MICRO-COM H40 models to improve receiver desensitization 15db, and MICRO-COM U30 models to improve receiver spurious 10db.

B. CIRCUIT DESCRIPTION (Refer to schematic)

The circuit consists of a pair of helical resonators that are inserted in the receiver front end. The helicals are tuned for best sensitivity. The normal tune-up procedure may then be followed for the remainder of the receiver.

C. INSTALLATION (Refer to schematic, radio P.C. Board diagrams and helical diagram)

MICRO-COM H40

Remove tie wrap from the cable harness between option slot #2 and receiver oscillator. Locate MA-305 as shown in the component side P.C. Board diagram inserting the coax in the proper holes. Mount the board with the #2 screws provided. Solder and dress the coax as indicated on the solder side P.C. Board diagram (be sure to desolder and cut plating as indicated).

MICRO-COM U30

Locate and drill 1/8" diameter holes on circuit side of P.C. Board per bottom side board diagram. Locate MA-305 as shown in the component side P.C. Board diagram inserting the coax in the indicated holes. Mount the board with the #2 screws provided. Remove coax JU211 from the PA Deck. Solder and dress the coax JU1801 and JU1802 and main P.C. Boards as indicated on the solder side P.C. Board diagram and PA Board diagram (be sure to desolder as indicated).

D. ADJUSTMENT PROCEDURE

Tune the helical preselector for best quieting in conjunction with the radio tune-up procedure to align the radio.

E. SPECIFICATIONS

1. Filter Performance

Insertion loss: 3db (typical), 6db (max) in five bands -

Band A	132-148 MHz
Band B	148-162 MHz
Band C	162-174 MHz
Band D	450-476 MHz
Band E	470-512 MHz

Operating bandwidth: ± 0.75 MHz from center frequency

Skirt Attenuation: Greater than -30db @+5 MHz

2. Micro-Com Radio Performance

MICRO-COM H40

Receiver sensitivity	20db quieting	1.0 μ v (max)
	12db sinad .45 μ v (typ)	.7 μ v (max)
Adj channel desense (12db)	93db (typ)	90db (min)

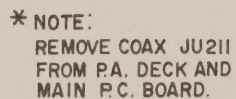
MICRO-COM U30

Receiver sensitivity	20db quieting	1.0 μ v (max)
	12db sinad .45 μ v (typ)	.7 μ v (max)

MICRO-COM H40 SERIES

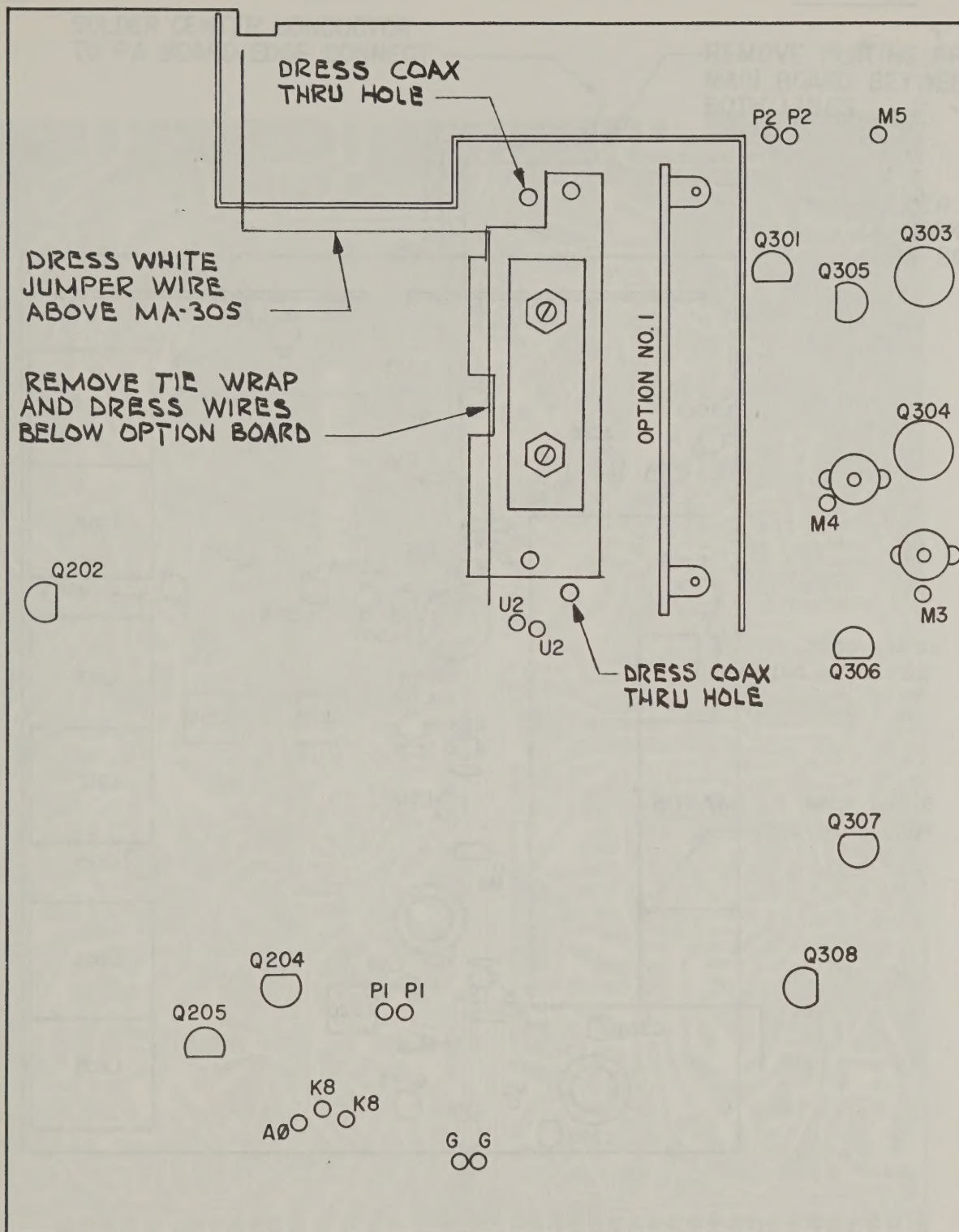


MCU 30



RADIO INTERFACE DIAGRAM

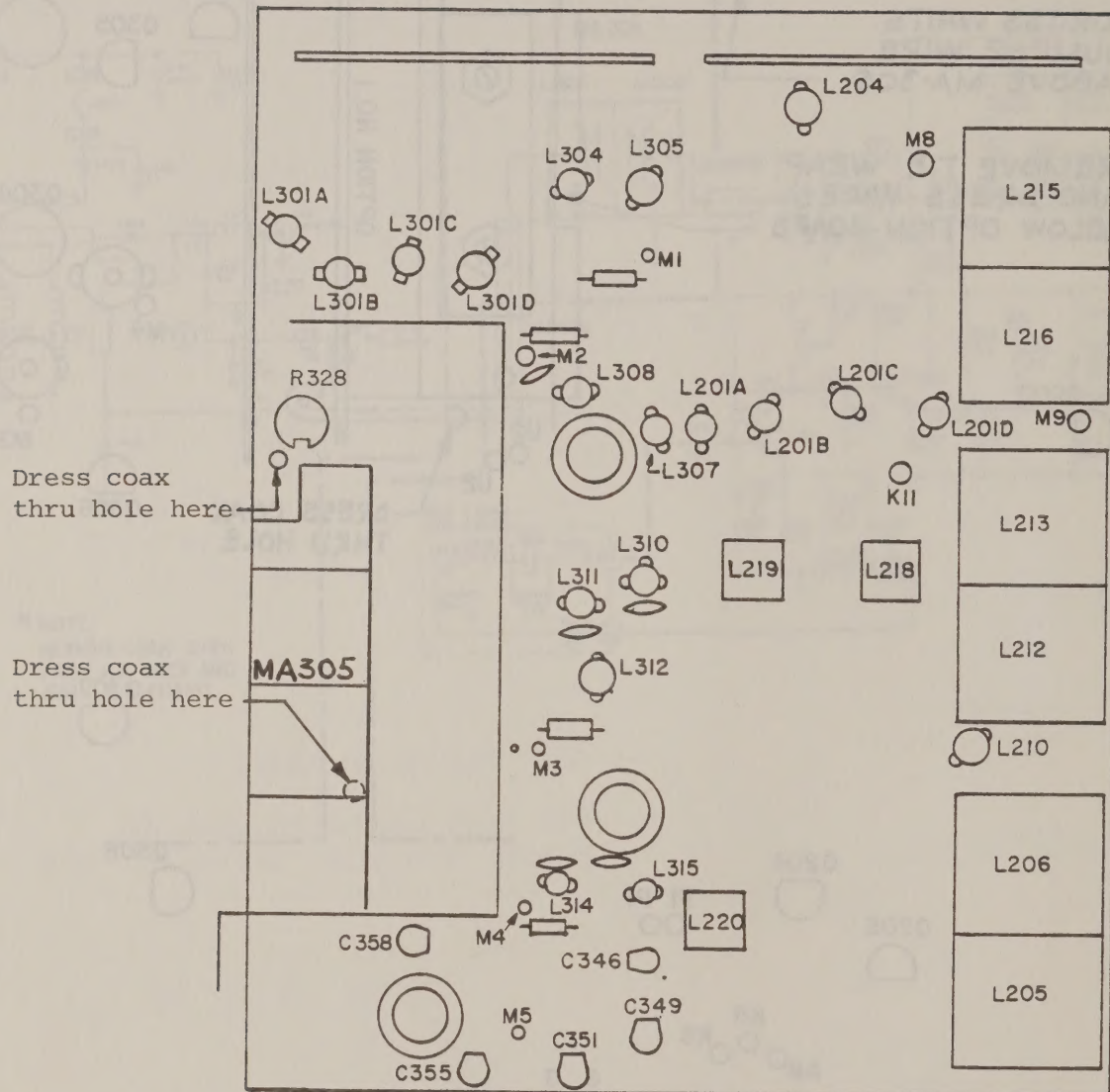
MCH 40



RADIO PIN OUT DIAGRAM

RADIO INTERFACE DIAGRAM

MCU - 30



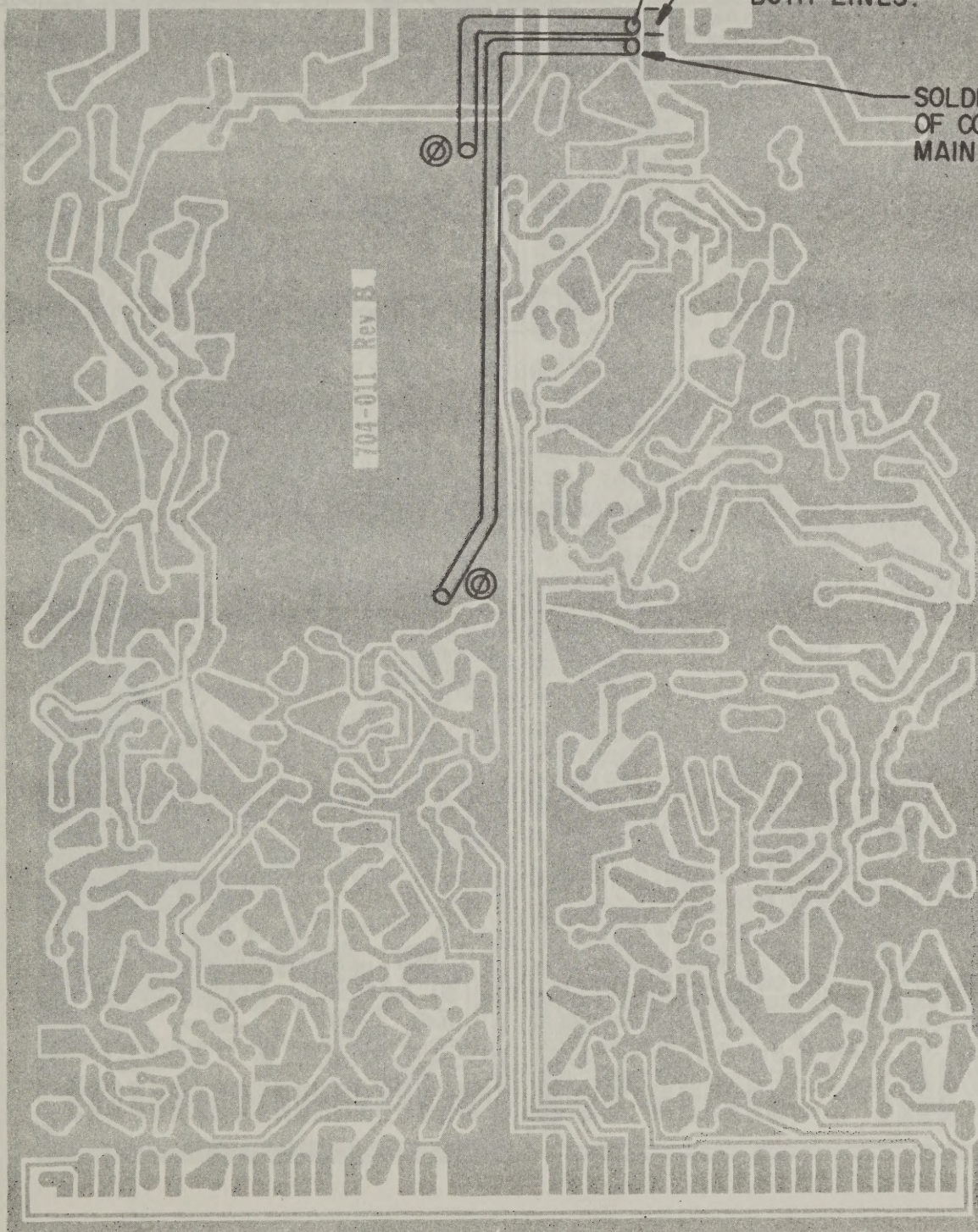
CONNECTION DIAGRAM

MCH 40

SOLDER CENTER CONDUCTOR
TO P.A. BOARD EDGE CONNECT

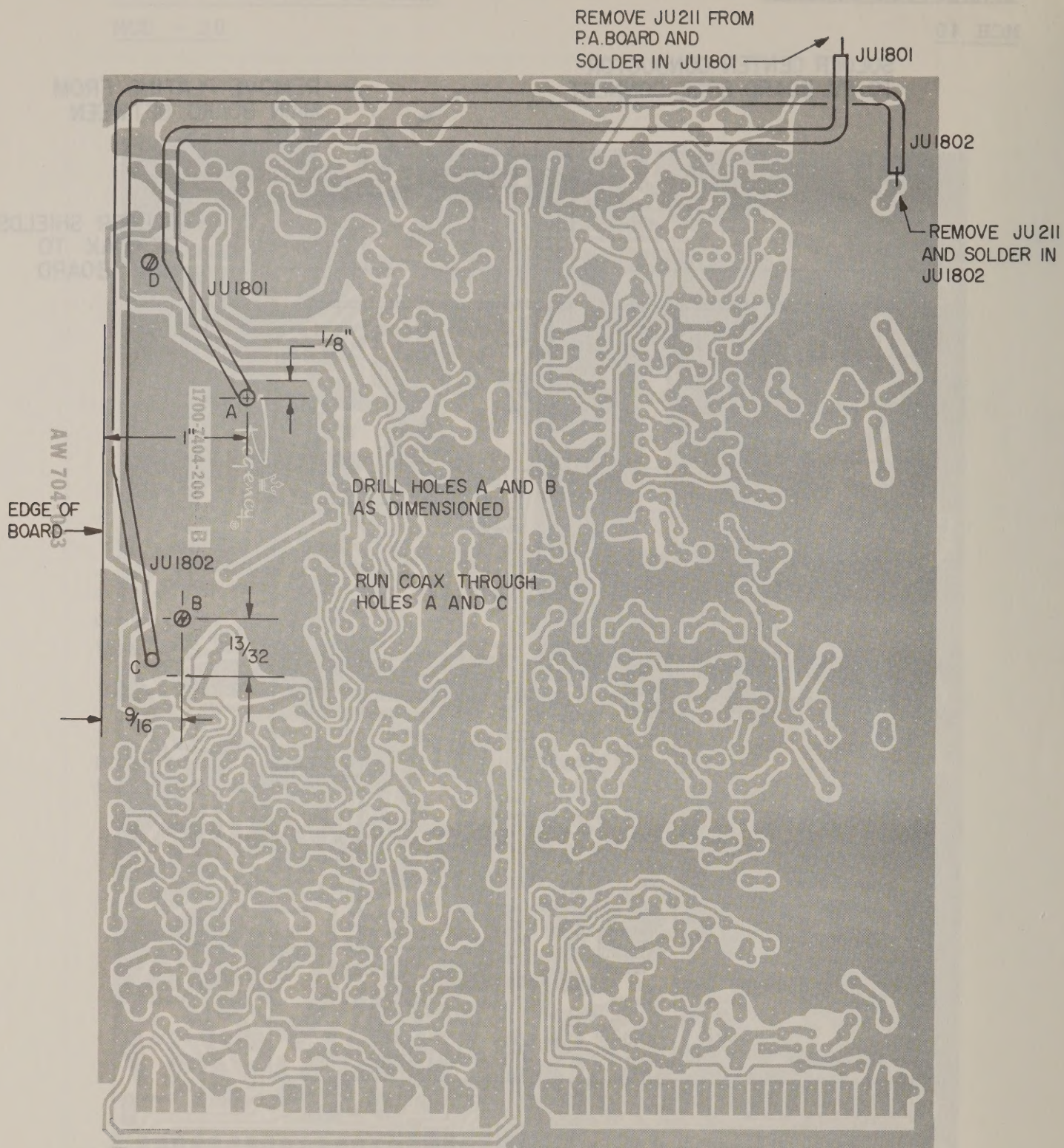
REMOVE PLATING FROM
MAIN BOARD BETWEEN
BOTH LINES.

SOLDER SHIELDS
OF COAX TO
MAIN BOARD



CONNECTION DIAGRAM

MCU-30



I. PARTS LIST

PART NO.

<u>MECHANICAL PART</u>	<u>DESCRIPTION</u>	<u>Band A</u> <u>132-148 MHz</u>	<u>Band B</u> <u>148-162 MHz</u>	<u>Band C</u> <u>162-174 MHz</u>
PC Board	PC Board	1700-5420-800	1700-5420-800	1700-5420-800
Standoff	Standoff	2813-1240-616	2813-1240-616	2813-1240-616
Shield can pr. L1801, 1802	Shield can pr. Helical	2508-5409-904 1800-5129-112	2508-5409-903 1800-5129-100	2508-5409-903 1800-5129-111
Nuts	Helical nuts	2851-1432-001	2851-1432-001	2851-1432-001
Screw	Helical screw	2821-3248-201	2821-3248-201	2821-3248-201
Screw	Mtg screw 2-56x1½	2801-0250-001	2801-0250-001	2801-0250-001
Coax	Coax, RG316/U	6042-0000-007	6042-0000-007	6042-0000-007

<u>MECHANICAL PART</u>	<u>DESCRIPTION</u>	<u>Band D</u> <u>450-476 MHz</u>	<u>Band E</u> <u>470-512 MHz</u>
PC Board	PC Board	1700-5420-800	1700-5420-800
Standoff	Standoff	2813-1240-616	2813-1240-616
Shield can pr. L1801, 1802	Shield can pr. Helical	2508-5409-902 1800-5129-101	2508-5409-902 1800-5129-105
Nuts	Helical nuts	2851-1432-001	2851-1432-001
Screw	Helical screw	2821-3248-200	2821-3248-200
Screw	Mtg. screw 2-56x1½	2801-0250-001	2801-0250-001
Coax	Coax, RG316/U	6042-0000-007	6042-0000-007

1. PARTS LIST

MECHANICAL PARTS		ELECTRICAL PARTS		PART NO.	
PC Board	100-1000-001	PC Board	100-1000-001	100-1000-001	100-1000-001
Standoff	100-1000-002	Standoff	100-1000-002	100-1000-002	100-1000-002
Shield can	100-1000-003	Shield can	100-1000-003	100-1000-003	100-1000-003
Heat, 1000	100-1000-004	Heat, 1000	100-1000-004	100-1000-004	100-1000-004
Watt	100-1000-005	Watt	100-1000-005	100-1000-005	100-1000-005
Screw	100-1000-006	Screw	100-1000-006	100-1000-006	100-1000-006
Screw	100-1000-007	Screw	100-1000-007	100-1000-007	100-1000-007
Cover	100-1000-008	Cover	100-1000-008	100-1000-008	100-1000-008
MECHANICAL PARTS		ELECTRICAL PARTS		PART NO.	
PC Board	100-1000-009	PC Board	100-1000-009	100-1000-009	100-1000-009
Standoff	100-1000-010	Standoff	100-1000-010	100-1000-010	100-1000-010
Shield can	100-1000-011	Shield can	100-1000-011	100-1000-011	100-1000-011
Heat, 1000	100-1000-012	Heat, 1000	100-1000-012	100-1000-012	100-1000-012
Watt	100-1000-013	Watt	100-1000-013	100-1000-013	100-1000-013
Screw	100-1000-014	Screw	100-1000-014	100-1000-014	100-1000-014
Screw	100-1000-015	Screw	100-1000-015	100-1000-015	100-1000-015
Cover	100-1000-016	Cover	100-1000-016	100-1000-016	100-1000-016